

Remarks

Favorable consideration of this application is respectfully requested. Applicant has rewritten claims 2, 4, 6 and 7 and added new claims 20-30. Favorable reconsideration of this application is, consequently, earnestly solicited in view of the following remarks.

Applicant has amended the first paragraph of the specification to claim benefit of priority to three previously filed U.S. Patents, which were pending at the time the parent application Serial No. 09/405,676 which was filed on September 24, 1999 was still pending as a utility patent application. Applicant has enclosed copies of assignments previously recorded with the patent office that show the three previously filed U.S. Patents are commonly owned with the same assignee as that of the subject application and would not be available as prior art.

The drawings were objected to for having several informalities. Applicant has attached a proposed drawing correction to Figures 1, 2B, 2C and 2E to obviate the objection. Removal of this objection is respectfully requested.

The specification has been objected for having several informalities. Applicant has made a good faith effort to amend the specification accordingly. Thus, removal of these objections is respectfully requested.

Claims 2-7 were rejected under sec. 112, second paragraph as being indefinite. Applicant has amended the claims accordingly. Thus, removal of this rejection is respectfully requested.

Claims 1-2, 4 and 7 were rejected under sec. 102e as being anticipated by Blateri '276.

Claims 1-2 and 4 were also rejected under sec. 102e as being anticipated by Blateri '276. The Blateri '276 reference was filed for on November 20, 1998. Applicant notes that the subject application has been amended to include the benefit of priority to U.S. Serial No. 09/193,427 filed on November 17, 1998 now U.S. Patent 5,954,449, and also to U.S. Serial No. 09/193,429 filed on November 17, 1998 now U.S. Patent 5,951,197, which as admitted by the examiner in the previous office action would encompass the subject invention claims. Thus, the Blateri '276 reference is not available as a prior art reference.

Claims 1-2 and 4 were rejected under sec. 102e as being anticipated by Wu '353.

Applicant again notes that the subject application has been amended to include the benefit of priority to U.S. Serial No. 09/204,115 filed on December 2, 1998 now U.S. Patent 5,980,353, and which as admitted by the examiner in the previous office action would encompass the subject invention claims. Thus, the Wu '353 reference is not available as a prior art reference.

Claims 1-3 and 5-7 were rejected under sec. 102e as being anticipated by Wu '197.

Claims 1-2 and 4-5 were also rejected under sec. 102e as being anticipated by Wu '197. Applicant again notes that the subject application has been amended to include the benefit of priority to U.S. Serial No. 09/193,429 filed on November 17, 1998 now U.S. Patent 5,951,197, and which as admitted by the examiner in the previous office action would encompass the subject invention claims. Thus, the Wu '197 reference is not available as a prior art reference.

Claims 1-2, 5 and 7 were rejected under sec. 102e as being anticipated by Tai '531. The Tai '531 reference in Figures 1, 2, 4(as shown by arrow B), that the blades are attached by moving the blades INTO THE MOTOR HOUSING. Applicants amended claim 1 now claims ".....the blade mounting arm is being moved away from the rotating member..." which is clearly functionally and structurally different than the Tai '531 reference. Thus, removal of the Tai reference is respectfully requested.

Claims 1-2, and 4 were rejected under sec. 102e as being anticipated by Liao '388. The Liao '388 reference was filed for on August 23, 1999. Applicant notes that the subject application has been amended to include the benefit of priority to U.S. Serial No. 09/193,427 filed on November 17, 1998 now U.S. Patent 5,954,449, and also to U.S. Serial No. 09/193,429

filed on November 17, 1998 now U.S. Patent 5,951,197, and also to U.S. Serial No. 09/204,115 filed on December 2, 1998 now U.S. Patent 5,980,353 which as admitted by the examiner in the previous office action would encompass the subject invention claims. Thus, the Liao '388 reference is not available as a prior art reference.

Claims 1-2 and 5-7 were also rejected under sec. 102e as being anticipated by Wu '449. Applicant again notes that the subject application has been amended to include the benefit of priority to U.S. Serial No. 09/193,427 filed on November 17, 1998 now U.S. Patent 5,954,449, and which as admitted by the examiner in the previous office action would encompass the subject invention claims. Thus, the Wu '449 reference is not available as a prior art reference.

The remaining references of record such as Van Meter, Monroe III, and Stellner cited but not applied fail to overcome the deficiencies to the other references described above.

Under well recognized rules of the MPEP (for example, section 706.02(j)), the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438(Fed. Cir. 1991).

The mere fact that someone in the art can rearrange parts of a reference device to meet the terms of a claim is not by itself sufficient to support a finding of obviousness. The prior art must provide a motivation or reason for someone of ordinary skill in the art, without the benefit of the inventor's specification to make the necessary changes in the reference device. *Ex parte Chicago Rawhide Mfg. Co.*, 223 USPQ 351, 353 (Bd. Pat. App. & Inter. 1984).

Applicant contends the references cannot be modified to incorporate the features of subject claims 1-7 and 20-30 without utilizing Applicant's disclosure. The courts have consistently held that obviousness cannot be established by combining the teachings of the prior art to Applicant to produce the claimed invention, absent some teaching, suggestion, incentive or motivation supporting the combination. *In re Bond*, 910 F.2d 831, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990).

In view of the foregoing considerations, it is respectfully urged that claims 1-7 and 20-30 be allowed. Such action is respectfully requested. If the Examiner believes that an interview would be helpful, the Examiner is requested to contact the attorney at the below listed number.

Respectfully Submitted;



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CLEAN COPY OF PARAGRAPH CHANGES TO SPECIFICATION

Page 1, lines 1-5, change paragraph as follows:

This is a Divisional of Application Serial No. 09/405,676 filed September 24, 1999, which is a Continuation-In-Part of U.S. Application Serial No. 09/200,607 filed November 30, 1998 now U.S. Patent 6,171,059, which is a Divisional Application of U.S. Application 08/851,501 filed on May 5, 1997, now U.S. Patent 6,010,306, and which is a Continuation-In-Part of U.S. Application Serial No. 09/204,115 filed December 2, 1998 now U.S. Patent 5,980,353, and which is a Continuation-In-Part of U.S. Application Serial No. 09/193,427 filed November 17, 1998 now U.S. Patent 5,954,449, and which is Continuation-In-Part of U.S. Application Serial No. 09/193,429 filed November 17, 1998 now U.S. Patent 5,951,197, all by the same assignees as the subject invention.

This invention relates to ceiling fans, and in particular to easy and quick to attach and detach blade arms for overhead ceiling fans.

Page 1, lines 20-26 and page 2, lines 1-2, change paragraph as follows:

To finish this final assembly step takes great dexterity, patience, balance and time. In order for a single person 60 to be able to complete this final step, the installer 60 needs to hold in one hand 62 the fan blade 30 and already attached mounting arm 40, and to position a screw driver 70 to the heads of screws 50 with the other hand 64. The installer must be able to balance the mounting screws 50 on the tip of the screw driver 70, insert the screws upwardly through the holes 45 in the mounting arm, making sure not to accidentally drop the screws 50 and then screw the screws 50 into the mating holes 25 on the rotor 20 all while still holding the blade 30 and arm 40. This assembly requires the installer to have to constantly hold both hands 62 and 64 raised high above their head, while again standing on a stool or on a ladder.

Page 2, lines 3-13, change paragraph as follows:

Many problems occur from this traditional method of having one person installing a ceiling fan. Screws 50 can and do accidentally fall and become lost causing more time and more expense to finish the installation. The installer 60 often has to constantly re position the blade 30 and arm 40 in order to be able to properly line up the through-holes 45 in the mounting arms 40 with their respective mating holes 25 in the bottom of rotor 20. The blade 30 and mounting arm 40 have been known to fall on and cause injury to the user 60 during assembly. Additionally, the user can lose their balance and injure themselves as well as falling off the ladder and stool. Additional problems also occur after installation. For example, uneven tightening of each of the plural fasteners that connect the mounting arm to the motor has resulted in wobble effects when the ceiling fan system is running. Thus, the current operation of assembly has become known as a frustrating, undesirable, difficult, tedious, time consuming and sometimes dangerous task.

CX
Page 3, lines 6-7, change paragraph as follows:

C5
The third objective of the present invention is to provide detachable blade arms to ceiling fans wherein the centrifugal force of the fans locks to the blades in place.

C6
Page 5, lines 9-10, change as follows:

C6
Fig. 1 shows a prior art view of a blade with mounting arm attached to a ceiling fan motor and rotor.

C7
Page 5, lines 11-12, change as follows:

C7
Fig. 2A is a perspective exploded view of a first embodiment of the slip and lock fasteners, novel grommet washer, mounting arm, and rotor used for the subject invention.

C8
Page 6, lines 2-27 and page 7, lines 1-26, change as follows:

C8
Referring to Figures 2A-2C, a mounting arm 110 has one end 114 connected to blade arms(not shown). End 114 can be connected to blade arms similar to that shown in Fig. 1.

Alternatively, mounting arm 110 can be connected to detachable slide and lock blade fasteners such as those described in U.S. Serial No. 09/200, 607 filed Nov. 30, 1998 now U.S. Pat. 6,171,059 and U.S. Application Serial No. 08/851,501 filed on May 5, 1997 now U.S. Pat. No. 6,010,306 both by the same assignees as that of the subject invention, which are both incorporated by reference. End 112 of blade arm 110 has dual through-holes 115. Each through-hole 115, has a circular indentation on the top surface 117 of the arm 110 for allowing a lower lip portion 132 of a rubber type gasket 130 to be located therein. Through-holes 115, 115' can have a threaded interior wall for receiving the threaded shaft 125 of flat headed screw fastener 120. The upper surface 123 of the flat portion 122 of fastener 120 can be formed with a regular head, Phillips head, and the like surface, to allow the fastener 120 to be screwed into mounting arm end 112. The bottom 129 of fastener 120 can have a Phillips head or regular head screw surface to allow a user to remove the fastener 120 once the ceiling fan embodiment 100 has been installed. Deformable means 130 can be a single rubber gasket having a cylindrical lip portion 132, a cylindrical mid-portion 134, and an upper cylindrical lip portion 136, which can be used as a vibration isolator between the ceiling fan rotor 20 and the mounting arm 110. The mid-portion 134 of gasket 130 is fit within through-holes 115, 115' with upper lip portion sandwiched between the flat head 122 of fastener 120 and the end shield 25. Although two gaskets 130 and 130' are shown, one gasket could be used where the gaskets are connected by a single connecting upper lip portion 136. Alternatively, only the lip portions 136 of the gaskets 130 can be used as washers for vibration isolation, and so forth. Once the protruding fasteners 120, 120' and their respective gaskets 130, 130' are attached to mounting arm end 112, the entire mounting arm 110 is raised and the flat heads 122 of the protruding fasteners are inserted upward in the direction of arrow B1 and B2 into the larger openings 26, 26' of the key-hole slots and the mounting arm 110 is pulled outward in the direction of arrow C until the heads 122 of fasteners 120, 120' and upper lip portions 136 of gaskets 130, 130' slide into smaller key-hole slot openings 28, 28' where the tight fit of the exterior of mid-portions 134 of gaskets 130, 130' locks the mounting arms in place. An optional spring clip 140 similar to that described in U.S. Pat. No. 6,171,059, and U.S.

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Application Ser. No. 08/851,501 filed on May 5, 1997 now U.S. Pat. No. 6,010,306, both by the same assignees as that of the subject invention, which are both incorporated by reference, can be used to further lock the mounting arms 110 in place on the endshield bottom 25 of rotor 20.

Although two protruding fasteners and two slots are shown for each mounting arm, the invention can be practiced with one protruding fastener and slot, and three or more protruding fasteners and slots.

Page 8, lines 1-4, change paragraph as follows:

Fig. 2E is an enlarged view of the slide and lock fastener of Fig. 2C with the protruding member fastener 150 initially attached to the rotor end shield 125 and the through-hole 115 on the mounting arm end 112. The mounting arm 110 can then be attached similar to that previously described above.